

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A packet data serving node for connecting a communication terminal device to a public network by using Point to Point Protocol (PPP), the packet data serving node supporting a plurality of layer 3 protocol types, comprising:

Link Control Protocol (LCP) phase processing means;

Network Control Protocol (NCP) phase processing means;

decision means for deciding a layer 3 protocol type of a reception PPP packet; and

control means,

wherein, when performing a PPP connection prescribed in RFC1661, in a NCP phase after an LCP phase is completed, the control means controls the NCP phase processing means not to transmit any NCP start request message to the communication terminal device before receiving a NCP start request message from the communication terminal device,

the decision means receives the NCP start request message from the communication terminal device, and refers to a protocol field in the received NCP start request message to decide the layer 3 protocol type used by the communication terminal device, and

the control means controls the NCP phase processing means to transmit a NCP start request connection permission message set with corresponding to the layer

3 protocol type decided by the decision means to the communication terminal device and a NCP start request message of the layer 3 protocol type decided by the decision means to the communication terminal device.

2. (Currently Amended) A packet data serving node for connecting a communication terminal device to a public network by using Point to Point Protocol (PPP), comprising:

Link Control Protocol (LCP) phase processing means;

a plurality of Network Control Protocol (NCP) phase processing means for supporting different layer 3 protocol types respectively;

decision means for deciding a layer 3 protocol type of a reception PPP packet; and

control means,

wherein, when performing a PPP connection prescribed in RFC1661, in a NCP phase after an LCP phase is completed, the control means controls the NCP phase processing means not to transmit any NCP start request message to the communication terminal device before receiving a NCP start request message from the communication terminal device,

the decision means receives the NCP start request message from the communication terminal device, and refers to a protocol field in the received NCP start request message to decide the layer 3 protocol type used by the communication terminal device, and

the control means selects one of said NCP phase processing means corresponding to the layer 3 protocol used by said communication terminal device in

~~accordance with the layer 3 protocol type decided by the decision means, and~~
makes said selected NCP phase processing means transmit a NCP start
~~request~~connection permission message corresponding to the decided layer 3
protocol type and a NCP start request of the decided layer 3 protocol type destined
to said communication terminal device.

3. (Currently Amended) A packet data serving node for connecting a
communication terminal device to a public network by using Point to Point Protocol
(PPP), the packet data serving node supporting a plurality of layer 3 protocol types,
comprising:

Link Control Protocol (LCP) phase processing means;

Network Control Protocol (NCP) phase processing means;

decision means for deciding a layer 3 protocol type of a reception PPP
packet; and

control means,

wherein, when performing a PPP connection prescribed in RFC1661, in a
NCP phase after an LCP phase is completed, the control means controls the NCP
phase processing means not to transmit any NCP start request message to the
communication terminal device before receiving a NCP start request message from
the communication terminal device,

the decision means receives the NCP start request message from the
communication terminal device, and refers to a protocol field in the received NCP
start request message to decide the layer 3 protocol type used by the
communication terminal device, and

the control means sets a layer 3 protocol ~~used by said communication terminal device~~ type decided by the decision to said NCP phase processing means ~~in accordance with the layer 3 protocol type decided by the decision means~~, and makes said NCP phase processing means transmit an NCP start request connection permission message of the decided layer 3 protocol type and an NCP start request message of the decided layer 3 protocol type destined to said communication terminal device.

4. (Currently Amended) A packet data serving node for connecting a communication terminal device to a public network by using Point to Point Protocol (PPP), the packet data serving node supporting a plurality of layer 3 protocol types, comprising:

Link Control Protocol (LCP) phase processing means;
a plurality of Network Control Protocol (NCP) phase processing means;
decision means for deciding a layer 3 protocol type of a reception PPP packet;

statistics processing means for statistically processing a type of a layer 3 protocol ~~under PPP~~ used for PPP connection completion; and
control means,

wherein, when performing a PPP connection prescribed in RFC1661, in a NCP phase after a LCP phase is completed, the control means selects said NCP phase processing means using for a layer 3 protocol designated having a highest use frequency based on a statistics processing result by said statistics processing

means, and makes said NCP phase processing means transmit an NCP start request message destined to said communication terminal device.

5. (Currently Amended) A communication method for a communication system using Point to Point Protocol (PPP) wherein:

when performing a PPP connection prescribed in RFC1661, in a Network Control Protocol (NCP) phase after a Link Control Protocol (LCP) phase process is completed between a terminal device and a packet data serving node,

said packet data serving node does not transmit any NCP start request message to said terminal device before receiving a NCP start request message from said terminal device, starts a NCP phase upon receipt of the NCP start request message from said terminal device, and transmits an NCP start request connection permission message to said terminal device by using and an NCP start request message corresponding to a layer 3 protocol notified from said terminal device to said terminal device.

6. (Currently Amended) A communication connection apparatus for connecting a communication terminal to a public network by using Point to Point Protocol (PPP) via a provider network, the communication connection apparatus supporting a plurality of layer 3 protocol types, comprising:

a reception unit which receives packets from the communication terminal via an interface of the provider network; and

a transmission unit which transmits packets to the communication terminal via the interface of the provide network;

a control unit,

wherein, when performing a PPP connection prescribed in RFC1661, in a Network Control Protocol (NCP) process after a Link Control Protocol (LCP) process and an authentication process are completed, the control unit does not transmit any NCP start request packet to the communication terminal before receiving a NCP start request packet from the communication terminal,

when the reception unit receives the NCP start request packet from the communication terminal, the control unit decides a NCP layer 3 protocol type of a received packet based on layer 3 protocol type identification information in a field of the NCP start request packet received by the reception unit, and controls the transmission unit to transmit a NCP ~~start request~~ connection permission packet of ~~the~~ corresponding to the decided layer 3 protocol type and a NCP start request packet of the decided layer 3 protocol type to the communication terminal.

7. (Cancelled)

8. (Previously Presented) A communication connection apparatus for connecting a communication terminal to a public network by using Point to Point Protocol (PPP) via a provider network, comprising:

a reception unit which receives packets from the communication terminal via an interface of the provider network;

a transmission unit which transmits packets to the communication terminal via the interface of the provider network;

a statistic processing unit which statistically process types of layer 3 protocols used in PPP; and,

a control unit,

wherein, in a Network Control Protocol (NCP) occurring after completing a Link Control Protocol (LCP) process and an authentication process, the control unit decides a type of layer 3 protocol to be used for the communication with the communication terminal based on a statistics processing result performed by the statistics processing unit, and transmits a NCP start request packet of the decided layer 3 protocol type from the transmission unit,

wherein when the reception unit receives a NCP start request packet of the decided layer 3 protocol from the communication terminal,

a control unit controls the transmission unit to transmit a connection permission packet of the decided layer 3 protocol to the source communication terminal of the NCP start request packet.

9.-22. (Cancelled)